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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,465	12/03/2003	Kiyoshi Aoki	1190-0585P	4047

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EXAMINER	
GUHARAY, KARABI	

ART UNIT	PAPER NUMBER
2879	

NOTIFICATION DATE	DELIVERY MODE
05/22/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/725,465	Applicant(s) AOKI ET AL.	
	Examiner Karabi Guharay	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/3/03</u> . | 6) <input type="checkbox"/> Other: ____. |

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3 & 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "said substantially barrel shape" in line 2. Since claim 1 recites two barrel shape one associated with the core and one in the yoke mounting region. it is not clear which one applicant is referring to. There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 3 & 6 applicant recites two expressions but called it as relations (1) and (2) which renders the claims indefinite since such expressions are not presenting any relationship, rather states a value or quantity.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Hinotami et al. (US 4754190).

Regarding claim 4, Hinotami et al. disclose a deflection yoke used in a cathode ray tube device (Fig 1), said cathode ray tube device comprising a vacuum envelope and an electron gun, said vacuum envelope including a funnel-shaped portion having a tube axis, a panel connected to one end of said funnel-shaped portion in the direction of said tube axis, and a substantially cylindrical neck (10) connected to an opposite end of said funnel-shaped portion (22), said panel including a substantially rectangular screen on which horizontal and vertical axes are defined, said funnel-shaped portion having a yoke-mounting portion adjacent to said neck, said electron gun being mounted in said neck for emitting electron beams; said deflection yoke (Figs 2-6) comprising horizontal and vertical deflection coils (42 & 44) for deflecting the electron beams along said horizontal and vertical axes; a separator (60) provided between said horizontal and vertical deflection coils; and a hollow core (40) with high magnetic permeability surrounding at least one of said horizontal and vertical deflection coils, wherein said hollow core has outer and inner surfaces, and a sectional shape of at least said outer surface, in a plane perpendicular to said tube axis, varies from a substantially circular shape to a substantially barrel shape, along said tube axis from said neck side to said panel side of said hollow core, said substantially barrel shape having a maximum dimension at least in a direction of said horizontal axis or said vertical axis (Figs 2-5).

Regarding claim 5, Hinotami discloses that the substantially barrel shape includes two substantially straight sides extending in parallel with said horizontal axis or

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said vertical axis, and two arc-shaped sides in the form of circular arcs having the center of curvature aligned on said tube axis (Fig 2, Fig 3II, Fig 4 & Fig 5II).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hinotami et al. (US 4754190), and further in view of Sano et al. (US 5962964).

Regarding claim 1, Hinotami et al. disclose a cathode ray tube comprising a vacuum envelope (Fig 1) including a substantially funnel-shaped portion having a tube axis, a panel connected to one end of said funnel-shaped portion (22) in a direction of said tube axis, a substantially cylindrical neck connected to an opposite end of said funnel-shaped portion, said panel including a substantially rectangular screen on which horizontal and vertical axes are defined, said funnel-shaped portion including a yoke-mounting portion adjacent to said neck;

an electron gun (10) mounted in said neck, said electron gun emitting electron beams;

and a deflection yoke (see Figs 2-3) mounted on an outer surface of said yoke-mounting portion, said deflection yoke including a horizontal (42) and vertical deflection coils (44) for deflecting said electron beams along horizontal and vertical axes, a

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separator (60) provided between said horizontal and vertical deflection coils, and a hollow core (40) with high magnetic permeability surrounding at least one of said horizontal and vertical deflection coils, wherein said hollow core has outer and inner surfaces, and a sectional shape of at least said outer surface, in a plane perpendicular to said tube axis, varies from a substantially circular shape to a substantially barrel shape (Fig 4) along said tube axis from said neck side to said panel side of said hollow core, said substantially barrel shape having a maximum dimension at least in a direction of said horizontal or vertical axis.

But, Hinotami fails to disclose that the yoke-mounting portion has outer and inner surfaces, and a sectional shape of at least said outer surface, in a plane perpendicular to said tube axis, varies from a substantially circular shape to a substantially barrel shape, along said tube axis from said neck side to said panel side of said yoke-mounting portion, said substantially barrel shape having a maximum dimension at least in said direction.

However, Sano et al. discloses a CRT having an yoke mounting portion (14 of Fig 1) whose sectional shape of the outer surface in a plane perpendicular to the tube axis varies from substantially circular to a substantially barrel shape (lines 52-56 of column 5) the barrel shape having a maximum dimension in a direction of horizontal or vertical direction . Further Sano et al. teaches that such shape of yoke mounting portion of the vacuum enclosure of the CRT provides sufficient anti-implosion strength as well as reduce deflection power consumption (see Abstract).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have yoke mounting portion as discloses by Sano et al. in the device of Hinotami since such contour of yoke mounting portion will perfectly match with the yoke configuration of Hinotami and provide sufficient anti-implosion strength as well as reduce the deflection power consumption.

Regarding claim 2, Hinotami discloses that the substantially barrel shape includes two substantially straight sides extending in parallel with said horizontal axis or said vertical axis, and two arc-shaped sides in the form of circular arcs having the center of curvature aligned on said tube axis (Fig 2).

Other Prior Art Cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure : Fondrk (US 5258688).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is 571-272-2452. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

K. Guharay
Karabi Guharay
Primary Examiner
Art Unit 2879

5/15/07